United States Department of Agriculture
Agricultural Marketing Service, Science & Technology
Microbiological Data Program

SOP No: MDP-SHIP-01		Page 1 of 20
Title: Procedures for Packaging and Shipping Microbiological Cultures		
Revision: Original	Replaces: MDP-LABOP-04	Effective: 08/15/03

1: Purpose:

To provide standard procedures which make certain that all shipments of microbial cultures isolated in Microbiological Data Program (MDP) laboratories are properly prepared and documented in accordance with applicable U.S. Department of Transportation (DOT), U.S. Public Health Service, the Centers for Disease Control and Prevention (CDC), and the International Air Transport Association (IATA) regulations. To ensure proper infectious microorganism shipments, and to protect all individuals from inadvertent exposure to dangerous goods during their transport.

2. Scope:

This standard operating procedure (SOP) shall be followed by all laboratories conducting microbiological studies for MDP, including support laboratories conducting non-routine activities that may impact the program.

3. Principle:

This SOP provides information, guidelines, polices, and procedures that will enable laboratories participating in the MDP to ship properly the isolated *Escherichia coli* and *Salmonella* cultures on nutrient agar slants to other laboratories for additional testing and for stock culture preservation. There are specific regulatory requirements and provisions for the classifying, packing, labeling, marking, and shipping of microorganisms set by the DOT, U.S. Public Health Service, CDC, and IATA. Infectious bacteria such as *Salmonella* and E. coli enteropathogenic serotypes require triple containment and special shipping package markings. Infectious bacteria are defined as viable microorganisms that are capable of causing disease in humans or animals. Shipment of infectious microorganisms necessitates additional requirements as dangerous goods transport training and emergency response procedure awareness. Because the *E. coli* isolates covered in this procedure have not yet been serotyped, the strains may be enteropathogenic serotypes. Therefore, as a precaution, all *E. coli* strains will be shipped as infectious substances.

4. Outline of Specific Procedures:

6.1 Records to document transport of cultures and shipment limits

6.2 Triple packaging procedures

6.3 Required labeling and markings for packages

6.4 Training requirements for shipping infectious bacteria

6.5 Preparing the shipping declaration paper

6.6 Emergency response procedures and contacts for notification

5. References:

- Department of Transportation. September 30, 1972. Part 173 - Shippers. Etiologic agents. [49 CFR Part 173] Federal Register (FR), U.S. Government Printing Office, Vol. 37, No. 191, pp. 20554-20556 (§§173.386-173.388).
- Department of Transportation. September 2, 1998. Parts 171-180 – Hazardous materials: Revision to the standards for infectious substances and genetically modified microorganisms. [49 CFR Parts 171-180] Federal Register (FR), U.S. Government Printing Office, Vol. 63, No. 170, pp. 46843-46859.
- Department of Transportation. October 1, 2000. Subchapter C – Hazardous materials regulations. Code of Federal Regulations (CFR), Title 49, Parts 107, 171-180. National Archives and Records Administration publication, Washington, DC.
- International Air Transport Association (IATA). January 2001. Dangerous goods regulations, 42nd edition, IATA publication, Montreal, Quebec, Canada.
- International Air Transport Association (IATA). April 2001. Infectious substances shipping guidelines, 2nd edition, IATA publication, Montreal, Quebec, Canada. Public Health Service. May 13, 1971. Etiologic agents. [42 CFR Part 72] Federal Register (FR), U.S. Government Printing Office, Vol. 36, No. 93, pp. 8815-8816 (§72.25).
- Public Health Service, Centers for Disease Control and Prevention. July 21, 1980. Interstate shipment of etiologic agents. [42 CFR Part 72] Federal Register (FR), U.S. Government Printing Office, Vol. 45, No. 141, pp. 48626-48629.
- U.S. Department of Transportation (DOT), Transport Canada, and the Secretariat of Transport and Communications of Mexico (SCT). 2000. 2000 Emergency Response Guidebook (ERG2000), U.S. Government Printing Office. Information about the distribution center for ERG2000 for your location may be obtained from the Hazardous Material Safety

web site at http://hazmat.dot.gov or phone DOT at 202-366-4900 or write Office of Hazardous Materials Initiatives and Training, DHM-50, Research and Special Programs Administration, DOT, 400 7th St., S.W., Washington, DC 20590.

6. Specific Procedures:

6.1 Records to document transport of cultures and shipment limits

6.1.1 There shall be records to document the transport of cultures. A record logbook shall contain the following information for each culture slant shipment:

6.1.1.1 Identity of bacterium (*Salmonella* or *Escherichia coli*) shipped

6.1.1.2 Quantity shipped in each package, i.e., total volume (mL) or total mass size (g) of material in all test tubes and number of such primary containers

6.1.1.3 Laboratory reference numbers for the individual microorganisms

6.1.1.4 Date shipped and commercial shipping company used

6.1.1.5 Identity of produce each bacterium was isolated from and the State of origin in the United States, if available

6.1.1.6 Shipping conditions used shall be described as ambient temperature, ice packs, or Dry Ice (specify net weight)

6.1.1.7 Initials of person performing the packing

6.1.1.8 Initials of person shipping cultures

6.1.1.9 The identity of the facility each package is shipped to and the date the recipient laboratory was notified of shipment.

6.1.1.10 Confirmation of sample receipt.

6.1.2 The total quantity of material in all test tubes containing infectious bacteria on nutrient slants shall not exceed 50 mL (1.69 fluid ounces) or 50 g (0.11 pound) per package shipment. This is an IATA regulation for the transport of infectious materials by air.

6.2 Triple packaging procedures

6.2.1 Follow the regulatory requirements for rigorous triple packaging of cultures for rough handling and containment of infectious materials within the package without leakage to the outside. The following are general requirements:

6.2.1.1 Each of the screw-cap closures for the tightly capped test tubes (primary containers) shall be reinforced with a parafilm wrapping or a sealing film. Each of the individual test tubes shall be labeled for complete identification purposes. Then the tubes shall be separately wrapped in adequate amounts of absorbent nonparticulate material to ensure that contact among the tubes is prevented. Sufficient absorbent material wrapping shall be used to absorb the entire contents of the test tube(s) in case of breakage or leakage during transport.

6.2.1.2 Enclose the wrapped test tubes (primary containers) in a single secondary, durable watertight container. Secondary packaging that is capable of withstanding, without leakage, an internal pressure which produces a pressure differential of not less than 95 kPa (14 psi) and temperatures in the range of -40 °C to +55 °C (-40 °F to +131 °F) shall be used. Place additional absorbent material in the empty spaces at the top, bottom and sides of the secondary container before closure and sealing of cap or lid in place with waterproof tape.

6.2.1.3 Enclose secondary containers in an outer shipping container that meets triple packaging procedures. The outer packaging and secondary container are both constructed of sturdy material that meets the standards for certified United Nations (UN) performance-oriented packaging (POP). The outermost container must be at least 100 mm (4 in) in the smallest external dimension. The outermost shipping container and secondary container for infectious microorganisms must bear the required United Nations (UN) specification marking consisting of six parts as follows:

6.2.1.3.1 the U over N in a circle symbol that attests that the outer packaging meets the requirements of World Health Organization (WHO) as follows:

6.2.1.3.2 the type code: after the U over N in a circle certification mark, the next group of numbers is the type code which denotes the type of packaging. For infectious substances it is "4G" (fibreboard box).

6.2.1.3.3 the characters denoting the Class of Dangerous Goods to which the particular package belongs. In this case the mark states "CLASS 6.2".

6.2.1.3.4 the last two digits of the year of manufacturing of the packaging

6.2.1.3.5 the country authorizing the marking (e.g., USA or CAN)

6.2.1.3.6 the manufacturer's identification code for the name of the manufacturer

Example of a complete marking:

U over N in a circle 4G/CLASS 6.2/01 CAN/8-2 SAF-T-PAK

6.2.2 For **normal overnight shipment of packages refrigerant is not needed**. However, wet/water-filled leakproof ice packs or Dry Ice may be used for keeping cultures cooled. Dry Ice is limited to 200 kilograms per package that is shipped by air. However, only 7 kilograms of Dry Ice is needed to sustain temperature control for 3 to 4 days. The refrigerant material shall be placed on the outside of the secondary container. The refrigerant must be enclosed between the

secondary container and the outer shipping container. Sufficient absorbent support material must be added into the interior empty space of the outer package so that the secondary container does not become loose when the Dry Ice sublimates.

6.2.3 A sheet to list shipping package contents should be placed in a sealed plastic bag and should be attached to the sealed secondary container's exterior. The sheet should provide an itemized listing and complete description of the contents in the secondary container in the case of internal culture leakage or test tube breakage.

6.3 Required labeling and markings for packages

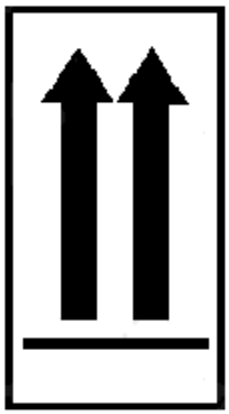
6.3.1 As of January 1, 1997, microbial cultures transported for the purposes of initial or confirmatory testing for the presence of pathogens must be shipped as infectious substances using IATA Dangerous Goods Regulations Packing Instruction 602. The *Salmonella* and *E. coli* isolates will be packed under Packing Instruction 602 and will be classified as Class 6.2 infectious substance.

6.3.2 Special markings or special labels are required on the outer packaging for all microbial culture shipments to indicate packing instructions. Shipment of *Salmonella* spp. and *E. coli* isolates require the wording, "INFECTIOUS SUBSTANCE, AFFECTING HUMANS 6.2 (*Salmonella* spp or *E. coli* .), PACKED IN COMPLIANCE WITH IATA PACKING INSTRUCTION 602". Shipment of Dry ice requires the wording, "CARBON DIOXIDE, SOLID OR DRY ICE 9, PACKED IN COMPLIANCE WITH IATA PACKING INSTRUCTION 904".

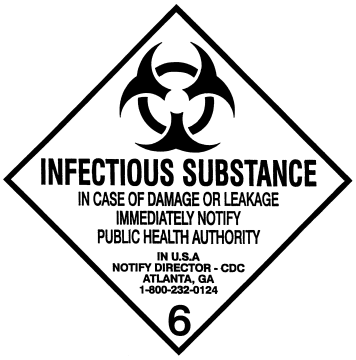
6.3.3 All packages containing infectious microbial cultures shall be legibly labeled with durable ink on the outside of the package with the name, complete address, and telephone number for both the responsible person for the shipment and the recipient.

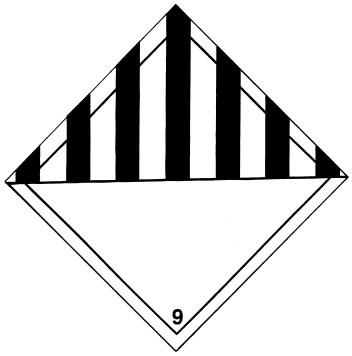
6.3.4 The outer packaging shall be maintained in an upright position during transport. Both package side surface panels (left and right) shall be legibly marked with package orientation markings that conform pictorially to the handling label below

with opposite double "up arrows" pointing in the correct upright direction on the package.

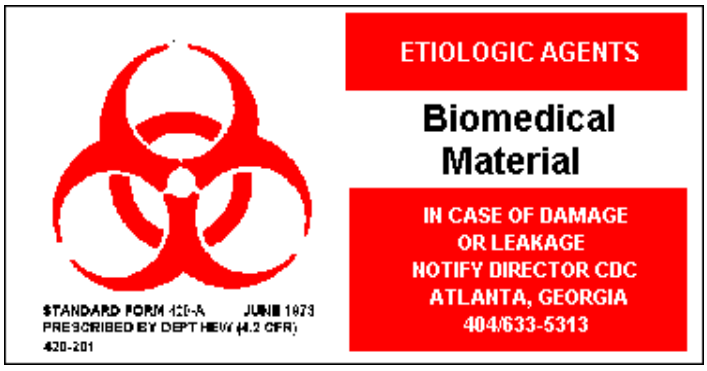


6.3.5 The proper label for known infectious materials shall be 100 millimeters (mm) by 100 mm Class 6 black and white diamond with international biohazard symbol and wording (see below) including the CDC 24-hour emergency response toll-free phone number (1-800-232-0124) if leakage is observed during transport. Dry Ice is considered a hazardous substance and if it is enclosed in the package, the Class 9 miscellaneous hazardous material label as a white diamond with black vertical bars (see below) shall also be used. These DOT labels shall be affixed to a single flat surface on the outer package exterior.





6.3.6 The outer shipping package containing etiologic or infectious agents (e.g., *Salmonella* and *E. coli* cultures) which are being shipped interstate shall bear a special biomedical material label pictured as follows:



The special biomedical material label shall meet the following specifications in part 72, section 72.3 (d) of Title 42, CFR:

6.3.6.1 The color of material on which the label is printed shall be white, symbol red, and the other printing displayed as pictured.

6.3.6.2 The label shall be a rectangle measuring 51 mm (2 inches) by 102.5 mm (4 inches) long.

6.3.6.3 The red symbol measuring 38 mm (1½ inches) in diameter shall be centered in a white square measuring 51 mm (2 inches) on each side.

6.3.6.4 The type size of the letters of the label shall be as follows:

Etiologic agents - 10 pt. rev.

Biomedical material - 14 pt.

In case of damage or leakage - 10 pt. rev.

Notify Director CDC, Atlanta, Georgia - 8 pt. rev.

(404) 633-5313 - 10 pt. rev.

6.3.6 The primary containers (screw-cap test tubes) and secondary containers each shall have an international biohazard symbol label or sticker affixed to their external surfaces if a *Salmonella* culture is enclosed**. Note: all the specialty labels are readily available as standard materials from several scientific supply companies.** A contents identification label shall be affixed to each test tube and secondary container indicating the microorganism(s) name(s), the total internal mass size (grams), and the laboratory reference number(s).

6.3.7 The outer shipping container for infectious microbial cultures shall be affixed with a label with the United Nations (UN) number(s), the proper shipping names, and the amount in grams for all hazardous substances (net weight of Dry Ice if used) and infectious microorganisms. The UN number for infectious substances affecting humans is UN 2814 and the UN number for infectious substances affecting animals is UN 2900. The UN number for Dry Ice is UN 1845. This biohazard classification and identification label follows this listing order: the proper shipping name with the microorganism technical name in brackets, the corresponding UN number, and the total quantity in grams (g) or kilograms (kg). An example of this outer shipping package contents label with the known infectious substance always listed first is as follows:

Package contains the following:

Infectious substance, affecting humans (*Salmonella* species), UN 2814, 2 x 10 g

Carbon dioxide, solid or Dry Ice, UN 1845, 7 kg net weight

EMERGENCY CONTACT: (800) 424-8802
National Response Center (24 hours available)

6.3.8 **CAUTION**: The shipper shall have knowledge of what is an infectious substance and what is not according to the regulations. It is against the law to declare a package as dangerous goods when it is not (49 CFR 172.202(e), 172.401(a)). The U.S. DOT fines a minimum assessment of $6200 for using a shipping name and class that that is incorrect and requires a baseline civil penalty of $1300 for placing a hazard label on a package that does not contain hazardous material (49 CFR part 107, subpart D, Appendix A).

6.4 Training requirements for shipping infectious bacteria

6.4.1 Every employee (including the typist) who has any responsibility for preparing infectious substances or other hazardous materials for shipment shall receive certified Dangerous Goods (DG)/ Hazardous Materials (Hazmat) Transportation training. At least one employee at each facility shall receive this training and testing only at an IATA accredited school obtained from the following world wide web (www) site:

http://iata.org/cargo/dg/schools_list.asp The trained person may train and test other fellow employees with the course materials acquired.

6.4.2 It shall be the employer's responsibility that these employees receive the initial documented training to fulfill the DOT requirements of 49 CFR part 172, subpart H prior to the first infectious substance transport from the MDP participating laboratory. Once the initial certified training has been successfully completed, the employee shall receive DG/Hazmat retraining and testing for certification at least every 24 months.

6.4.3 The initial DG/Hazmat and the recertification training programs shall include final examinations or tests for certification. The employees shall be trained in the following three areas of study:

6.4.3.1 There shall be general awareness or familiarization training, which provides the employees an acquaintance with the regulations and allows employees to recognize hazardous materials or dangerous goods in their workplace.

6.4.3.2 There shall be function specific training that is detailed job-specific training for the employee to perform their individual duties handling and preparing for transport of infectious substances.

6.4.3.3 There shall be safety training that includes emergency response procedures and measures to be taken in case of an emergency in handling infectious substances and other dangerous goods at the laboratory.

6.4.4 The employer may designate an outside source to train, test, and certify on its behalf. In lieu of outside or self-training, the employer may teach and test all the employees in-house themselves if the following three conditions are met:

6.4.4.1 There are records available for each employee documenting their training and testing in the three study areas listed in section 6.4.3.

6.4.4.2 There are copies of the training and testing materials made available for review.

6.4.4.3 The scored results of an exam (oral or written) administered to each employee are available for review in their personnel files.

6.4.5 The employee training records shall be kept filed and include the following:

6.4.5.1 There shall be the employee's full name on the folder.

6.4.5.2 There shall be available the date of the most recent completed training.

6.4.5.3 There shall be a detailed course description, a copy of the training materials used, and the name/address of the IATA approved training school utilized.

6.4.5.4 There shall be a complete address of the training location and the instructor(s) entire name(s) or the complete course title.

6.4.5.5 There shall be a dated training certificate or a dated scored final examination document available indicating that the employee has been trained and tested.

6.4.6 Records of current training, as well as the preceding two years (if applicable), shall be maintained for each employee. If the trained employee leaves the laboratory, the records shall be kept for an additional 90 days.

6.4.7 The certified DOT and Hazmat training records for all employees shall be made readily available upon the request of the appropriate authority.

6.5 Preparing the shipping declaration paper

6.5.1 The shipper shall be responsible to complete a required shipping declaration paper titled "Shipper's Declaration of Dangerous Goods", for each and every shipment of a properly labeled package containing infectious substances or other hazardous materials.

6.5.2 The shipper shall carefully review and verify the contents and accuracy of the shipping declaration paper before signing because it shall serve as a legal contract between the shipper and the commercial carrier.

6.5.3 The English wording in the shipping declaration certificate shall be legible and neatly completed. Changes on the paper shall be allowed if the incorrect item is crossed out with a single line, the correction written adjacent and signed, not initialed, by the shipper.

6.5.4 An example of a correctly prepared "Shipper's Declaration of Dangerous Goods" certificate that shall be applicable for the shipment of infectious substances and dangerous goods (e.g., Dry Ice) for the laboratories in the Microbiological Data Program is shown on the next page as follows:

SHIPPER's DECLARATION FOR DANGEROUS GOODS

Shipper Reference No.
FROM: Ms. Mary Ann Murphy
Shipper USDA, AMS, Science & Technology (S&T)
Origin National Science Laboratory
Address 801 Summit Crossing Place, Suite B
Gastonia, NC 28054-0614
Phone (704) 867-3873

Page__of__Pages
TO: Ms. Carolina Hall
Consignee USDA, ARS, RRC
Destination Antimicrobial Resistance Research Unit
Address Richard B. Russell Research Center
950 College Station Road
Athens, GA 30605-2720
Phone (706) 546-3603

Transport Details: **Airport of Departure:** **Airport of Destination:**

HM	Description and Classification (Proper Shipping Name and Class or Division per HMT)	Hazard Class	I.D. Number	Packing Group	Quantity and Type of Packing	Packing Instruction	Label Codes Required (or exemption)
X	Infectious substances, affecting humans (*Salmonella* species), 6.2	6.2	UN2814		15 g X 2	602	6.2
X	Carbon dioxide, solid or Dry Ice, 9	9	UN1845	III	3 kg All packed in one fibreboard box.	904	None

24-hour Emergency Contact (123) 456-7890 (cellular phone)
John F. Doe, Biological Safety Manager

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable international and national governmental regulations.

Mary Ann Murphy, Microbioliogist
July 1, 2003 / Gastonia, NC

Prior arrangements as required by the IATA Dangerous Good Regulations 1.3.3.1 have been made.
Prepared according to ICAO/IATA

6.5.5 For an accurate and complete description of the hazards on the "Shipper's Declaration for Dangerous Goods" certificate the shipper shall furnish the following required information in this sequence:

6.5.5.1 Each dangerous good shall be identified with the letter "X" denoting no reportable quantity in the column marked "HM" for hazardous material. If the package contains both a hazardous material and a non-hazardous material (e.g., wet/water-filled leakproof ice packs), the hazardous material entries shall be entered first in a contrasting color or highlighted on all papers.

6.5.5.2 The proper shipping name and hazardous material description in singular or plural form shall be given (this from column 2 of the 49 CFR § 172.101 Hazardous Materials Table or HMT). The proper shipping name shall include the technical name in parenthesis in association with the basic description, when applicable, specified by the letter "G" in column 1 of the 49 CFR § 172.101 HMT. The hazardous material description shall be followed by the abbreviation "N.O.S." if it is not otherwise specified in the HMT.

6.5.5.3 The hazard class or division shall be listed (this from column 3 of the 49 CFR § 172.101 Hazardous Materials Table). Infectious substances (e.g., *Salmonella* species) are in hazard class 6 and division 6.2. Dry Ice is in hazard class 9.

6.5.5.4 The United Nations (UN) four-digit identification number shall be listed (this from column 4 of the 49 CFR § 172.101 Hazardous Materials Table). Sometimes the letters "NA" are listed before the identification number, which is the abbreviation for North America.

6.5.5.5 The PG or packing group, when applicable, in Roman numerals shall be given (this from column 5 of the 49 CFR § 172.101 Hazardous Materials Table). Dry Ice is in packing group III that indicates that the material is a minor danger.

6.5.5.6 The total quantity in gross or net weight, including abbreviation of the unit for measurement, of the hazardous material shall be given. The infectious substances are in gross weight and shall not exceed 50 grams. The Dry Ice is net weight in kilograms.

6.5.5.7 The label codes, if any shall be given (this from column 6 of the 49 CFR § 172.101 Hazardous Materials Table). No label codes are required for Dry Ice so the word "none" is given.

6.5.5.8 The shipping paper will show an emergency telephone number to contact the responsible person at the laboratory or facility for the shipment (e.g., Biological Safety Manager) upon discovery of evidence of leakage or any other damage to the package. The 24-hour emergency telephone number shall be that of the designated Biological Safety Manager or other knowledgeable person in the organization who will directly answer the phone, and who will accept responsibility for providing detailed information for each shipment. It is acceptable to provide a single cellular phone number.

6.5.5.9 The shipping paper shall show transport details, airport of departure, and airport of destination. Also, other emergency response cross-reference information regarding the emergency response guidance document shall be given.

6.5.5.10 The shipping paper shall contain the shipper's written declaration statement and signature for certification that the hazardous materials are properly prepared for transportation according to the applicable international and national governmental regulations.

6.5.5.11 The "prior arrangements" statement shall be listed at the bottom of the shipper's declaration paper for a shipment of infectious substances. This statement shall indicate that prior arrangements as required by the IATA Dangerous Goods Regulations 1.3.3.1 have been made.

6.5.5.12 If more than one page is required for the shipper's declaration for dangerous goods paper, the first page shall indicate multiple pages, i.e., "page 1 of 2".

6.5.6 The shipper shall prepare the shipping declaration certificate in duplicate. One copy shall be provided to the carrier (e.g., FedEx), and the other copy shall be retained by the shipper or laboratory for a minimum of one year.

6.5.7 All Shipper's Declarations for Dangerous Goods certificates shall be typed or computer generated in English. **Note: Handwritten forms will not be accepted.**

6.6 Emergency response procedures and contacts for notification

6.6.1 The shipper and handlers of infectious substances (e.g., *Salmonella* cultures) shall have the following two manuals readily available at the workplace or laboratory:

6.6.1.1 International Air Transport Association (IATA). January 2001. Dangerous goods regulations, 42nd edition, IATA publication, Montreal, Quebec, Canada.

6.6.1.2 U.S. Department of Transportation (DOT), Transport Canada, and the Secretariat of Transport and Communications of Mexico (SCT) 2000. 2000 Emergency Response Guidebook (ERG2000), U.S. Government Printing Office. This manual includes Guide 158 document for infectious substances.

6.6.2 The shipper and handlers of infectious substances shall have the following minimum emergency response and spill kit materials readily available at the workplace or laboratory:

6.6.2.1 Liquid household bleach (contains 5% sodium hypochlorite or NaOCl solution) or some other concentrated disinfectant

6.6.2.2 A package or roll of absorbent paper towels

6.6.2.3 Autoclavable and disposable high density polyethylene bags with the universal biohazard symbol and precautionary procedures

6.6.2.4 Rubber gloves

6.6.2.5 Forceps

6.6.3 Each laboratory shall designate a responsible facility official titled "Biological Safety Manager" to ensure management oversight of the transfer process for infectious substances and other dangerous materials. Although not required, a Biological Safety Manager, responsible for the correct handling and shipment of infectious microbial agents, should have a background in microbiology and training and experience in biosafety.

6.6.4 Any transportation incident involving an infectious substance including a lost or stolen package, or a damaged package, shall be reported to the CDC through its 24 hours, 7 days-a-week emergency number (1-800-232-0124) by either the shipper, recipient, or package handler.

6.6.5 When notice of delivery of materials known to contain infectious substances is not received by the sender within 5 days following anticipated delivery of the package, the sender shall notify the Director, Centers for Disease Control and Prevention Attn: Biohazards Control Office, 1600 Clifton Road N.E., Atlanta, GA 30333 or by telephone at (404) 633-5313.

6.6.6 If any infectious substance (e.g., confirmed Salmonella culture) spill occurs or evidence of leakage or any other damage to the packages bearing an infectious substance label is discovered prior to or after shipment, the shipper or handler shall contact the National Response Center at their 24-hour emergency phone number at (800) 424-8802 or CDC by phone to discuss how to isolate the spill or package and how to properly perform procedures related to spill clean-up.

SOP No: MDP-SHIP-01		Page 18 of 20
Title: Procedures for Packaging and Shipping Microbiological Cultures		
Revision: Original	Replaces: MDP-LABOP-04	Effective: 08/15/03

Grace Hall 08/08/03

Approved by: Grace Hall, Chairperson Date
MDP Technical Advisory Committee
Florida Department of Agricultural and Consumer Services
Food Laboratory, Bldg. 9
3125 Conner Blvd.
Tallahassee, Florida 32399-1650
(850) 488-4407

Roger Fry 08/11/03

for: Approved By: Martha Lamont Date
Director, Monitoring Programs Office
8609 Sudley Road, Suite 206
Manassas, VA 20110
(703) 330-2300

Diana Haynes 08/11/03

Reviewed By: Diana Haynes Date
Quality Assurance Officer, Monitoring Programs Office
8609 Sudley Road, Suite 206
Manassas, VA 20110
(703) 330-2300

ELECTRONICALLY REPRODUCED SIGNATURES

SOP No: MDP-SHIP-01		Page 20 of 20
Title: Procedures for Packaging and Shipping Microbiological Cultures		
Revision: Original	Replaces: MDP-LABOP-04	Effective: 08/15/03

Original	February 2003	Monitoring Programs Office

- This SOP outlines general packaging and shipping procedures/requirements as previously specified in SOP MDP-LABOP-04, Shipping Microbiological Cultures
- Specific information regarding contacts for laboratories performing additional testing or maintaining culture collections may now be found in SOP MDP-SHIP-02, MDP Microbiological Culture Shipping Instructions
- Modified scope for consistency with other MDP SOPs
- Revised numbering in outline of specific procedures
- Renumbered for consistency with other SOPs
- Revised to include *E. coli* isolates as infectious substances